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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,717	03/27/2000	Pankaj K. Jha	0325.00344	4069

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EXAMINER

GEORGE, KEITH M

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 01/15/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/535,717

Applicant(s)

JHA, PANKAJ K.

Examiner

Keith M. George

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 28 August 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. A copy of application 09/535889 has not been submitted.

Drawings

2. Figures 1-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. If figures 1-5 are not prior art, applicant is required to distinctly point out which aspects of the invention are shown in these figures.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 1-15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not appear to describe a frame comprising a plurality of packets wherein at least one packet has a header section having a plurality of identification portions that appears in lines 5-7 of claim 1.

6. Claims 5-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not appear to describe determining that an upstream node is faulty based on a payload error portion that appears in line 6-7 of claim 5.

7. Claims 17-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not appear to describe adding a header section having a plurality of identification portion and a header error portion to each of a plurality of packets. It also does not appear to describe adding a payload error portion to each of the packets without a payload error portion. These limitations appear in lines 4-5 and 8-9 of claim 17.

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8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

- a. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 4, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 4 recites the limitation "said error check information" in lines 5-6 of the claim. There is insufficient antecedent basis for this limitation in the claim. It is unclear if the "said error check information" refers to the "error check information" in line 3 or line 5 of the claim.

11. Claim 18 recites the limitation "said network" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 19 recites the limitation "said packet" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim. All of the previous references to packets in claim 17 and 19 are in reference to a plurality of packets; there is no previous reference to a single packet.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

14. A by row within the SONTE SPEs, or the SDH Administrative Unit Groups (AUGs), in an octet synchronous fashion (frame comprising a plurality of packets).

a person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

15. Claims 1-4 and 6-20 rejected under 35 U.S.C. 102(a) as being anticipated by Doshi et al, hereinafter Doshi.

16. Referring to claim 1, Doshi teaches an SDL frame in figure 3 that contains a PDU length indicator and a header error CRC (plurality of identification portions) and a FCS (payload error portion). Doshi also teaches that of synchronous payloads at STS-1 rates and higher, SDL PDUs are to be inserted page 1298, col. 2, ll. 21-25, SDL is mapped over SONET/SDH).

17. Referring to claim 4, Doshi discloses the header error portion stores error check of header section (i.e. figure 3, Header Error CRC) and payload error portion stores error check of a payload area (i.e. figure 3, FCS). It is clear from figure 3 that the FCS is independent of the header section.

18. Referring to claim 6, it is inherent to discard information that contains multiple bit errors because it is not able to be recovered by the CRC polynomial.

19. Referring to claims 7-9, Doshi discloses node determine a header error (i.e. page 1298, col. 1, Hunt State looks for SDL header error); layer 2 and layer 3 address (page 1297, col. 1, Information field could be IP which inherently includes layer 3 address and Ethernet which inherently includes layer 2 address); and a data identifier (i.e. fig. 3, Protocol Type).

20. Referring to claim 10, Doshi discloses a data payload (i.e. figure 2, SDL payload)

21. Referring to claim 11, Doshi discloses an address portion (i.e. figure 3, Address).

22. Referring to claim 12, Doshi discloses a control word to control the packet (i.e. figure 3, Control).

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23. Referring to claim 13, Doshi discloses an identity to identify destination (i.e. figure 3, Address).
24. Referring to claims 14-15, Doshi discloses a label portion (i.e. page 1296, col. 1, ll. 14-16, MPLS).
25. Referring to claim 16, Doshi discloses an apparatus and method comprising receiving packets at nodes (i.e. page 1297, col. 2, SDL operation, state machine for the receiver) and transmitting packets at nodes (inherent that the packet has to be transmitted in order to communicate with destination) wherein each packet comprises a header error portion and a payload error portion (i.e. fig. 3, Header Error CRC and FCS). Doshi also teaches a PDU length indicator field that indicates the size, in octets of the framed PDU (header length).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi in view of Bergman et al., U.S. Patent 6,442,694, hereinafter Bergman.
28. Doshi et al. does not specifically disclose that an upstream node transmits the packet and downstream node identifies the faulty upstream node. However, Bergman et al. teach that an upstream node transmits the packet and downstream node identifies the faulty upstream node (i.e. fig. 6, 52, node transmit to downstream node an alarm). Therefore, it would have been

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obvious to an ordinary person skilled in the art at the time of the invention to include an upstream node transmits the packet and downstream node identify the faulty upstream node as taught by Bergman et al. with the packet of Doshi et al. in order to correctly localize the source of an attack or fault so the amount of traffic lost can be reduced.

Response to Arguments

29. Applicant's arguments filed 15 October 2003 have been fully considered but they are not persuasive.

30. On page 10 of the Amendment, referring to claim 1, applicant argues that Doshi does not appear to disclose or suggest a frame comprising a plurality of packets. In response, Doshi has been shown to teach that for synchronous payloads at STS-1 rates and higher, SDL PDUs are to be inserted by row within the SONET SPEs. Clearly teaching placing multiple packets in a frame.

31. On page 10, applicant also argues in reference to claim 1 that Doshi does not appear to disclose at least one packet having a header section having a plurality of identification portions. In response, Doshi clearly teaches in figure 3 a PDU length indicator and a Header Error CRC, both identification portions of the header section of an SDL frame.

32. On page 10, referring to claim 16, applicant argues that Doshi does not disclose a packet comprising a header length. In response, Doshi has clearly shown in figures 2 and 3 a PDU length indicator.

33. On page 11, referring to claim 17, applicant argues that Doshi appears to be silent regarding a plurality of identification portions in the headers. In response, Doshi clearly teaches

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a PDU length indicator and a Header Error CRC portion of the SDL header, these are a plurality of identification portions in the header.

34. On page 11, referring to claim 6, applicant argues that discarding information with errors is not inherent to Doshi. In response, while it is true that single bit errors can be corrected by the CRC polynomial, multiple bit errors can only be detected, and since they can not be recovered, it is inherent to the system of Doshi that packets with multiple bit errors be discarded.

35. On page 12, referring to claim 5, applicant argues that both Doshi and Bergman appear to be silent regarding the faulty determination being based upon a payload error portion of a packet. In response, Bergman is clearly teaching that an upstream node transmits a packet and a downstream node identifies the faulty upstream node. While it is possible that the teaching of using the payload error portion of the packet as the indication of the faulty node does not appear in Doshi or Bergman, one of ordinary skill in the art at the time the invention was made would use any available indication in the packet to indicate a faulty node. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the FCS (payload error) portion of Doshi to indicate to the method of Bergman that a faulty node existed. One of ordinary skill in the art would have been motivated to do this in order to achieve the results of Bergman in the system of Doshi without a major modification to the protocol described by Doshi.

Conclusion

36. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 703-305-6531. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.



Keith M. George
12 January 2004



CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 1/12/04